CERTIFICATION

I HEREBY CERTIFY under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Signature: _____

Date: 12/30/2021

Name: Melissa Hyatt

Title: Chief of Police

REFERENCED DOCUMENTS:

Baltimore County Police Department Assignment Description – Police Sergeant

Maryland Police and Correctional Training Commissions Lesson Plan – Lead Poisoning

Total Pages: 12 plus certification page

THIS DOCUMENT IS FOR INTERNAL DEPARTMENT USE ONLY

BALTIMORE COUNTY POLICE DEPARTMENT ASSIGNMENT DESCRIPTION

THIS DOCUMENT MAY BE MODIFIED ONLY BY THE EMPLOYMENT SECTION. The duties and duty groups listed are examples and may not include all essential job functions and required tasks. Each position may not be required to perform all of the duties listed. This description supersedes all previous descriptions or revisions for this assignment.

TITLE: TRAINING SUPERVISOR
CLASS TITLE: POLICE SERGEANT
CLASS CODE: 10.519 All requirements of this class specification apply to this assignment.
ESTABLISHED: 12/89 REVISED: 7/93, 2/98, 5/01, 02/02, 10/08, 01/14, 10/15, 01/17, 08/20

Type of Work:
Assist in administering a police academy, supervising instructors, and teaching recruit, in-service, and specialized courses. Instruct police department personnel in recruit, in-service, firearms, and specialized courses.

Purpose: To develop personnel through training and education in order to increase effectiveness and productivity, reduce performance deficiencies, and generate public confidence in the police.

Supervision Received: General; refers difficult problems to supervisors.

Supervises: 2 - 9 instructors, various numbers of recruits.

Guidelines, Policies and Procedures Available: Written, comprehensive.

Complexity: Guidelines cover most situations.

Working Conditions and Hazards: Hazards relating to Firearms Instruction, Drivers Training, Tactics Training (such as self-defense), and Role Playing (STOPS, POST, etc.). Must be willing to work a flexible schedule with varied assignments. Personnel assigned to Firearms Instruction are exposed to airborne particulate lead and noise, for which personal safety protection is provided and engineering remediation is undertaken. Range personnel must participate in recording baseline figures for hearing and blood lead levels prior to assignment, and in periodic monitoring to identify audiometric changes or blood lead level elevation.

Location: Office, classroom, community college, Firearms Range, and other off-site settings depending on curriculum needs.

Financial Accountability: Credit card use.

Materials and Equipment Used: Computer, audio-visual equipment, weapons systems (lethal, less-lethal, and non-lethal).

Contacts: Trainees, instructors, all ranks, college faculty, students, and law enforcement personnel of all ranks from other agencies.

Required Certifications: MPCTC Instructor. Additional physical skills or subject matter knowledge may be required and tested for specialized training such as firearms, self-defense, physical training, driver education, etc. Candidates for assignments requiring specialized subjects will be required to meet specific MPCTC instructor certification standards.

MINIMUM QUALIFICATIONS:

1. Possess a work history clear of sustained disciplinary action related to performing this job.
2. Possess a work history that reflects a consistently high level of performance and judgment.
3. Be in suitable physical condition to fully participate in recruit physical training programs.
4. Possess a work history that shows an ability to communicate clearly and effectively both verbally and in writing.

Minimum qualifications are continuing in nature. Employees who become unable to meet minimum qualifications and working conditions will be reassigned within the department.

EXAMPLES OF ESSENTIAL DUTIES:

1. Job Element: Instruction
   Provide classroom instruction and clinical skills training in a police academy. Courses may include recruit/entrance level training, specialized training such as firearms, driving, technology, supervisor, management, lateral, PSO, and Cadet, or on-the-job training such as in-service and oversight of field training. Conduct practical and field exercises. Evaluate performance of trainees against standards. Arrange remedial work for marginal students. Participate in physical training and self-defense exercises.

2. Job Element: Curriculum and Lesson Preparation
   Develop, evaluate and revise lesson plans in various programs based on individual class needs for various levels of trainees. Research and develop new training initiatives and programs. Develop new and innovative techniques and approaches to instruction. Attend training seminars and schools. Gather and research information and materials related to subject matter, review current, national and local events and trends to update and revise the information and content presented in the program. Ensure course content meets department standards and complies with state certification requirements.

3. Job Element: Administrative Duties
   Grade examinations. Ensure that required records of scores and other performance indicators and information are maintained. Ensure that all required student/class records are kept in compliance with MPCTC, National Safety Council, and department standards. Research and select course materials, obtain and schedule guest speakers. Coordinate department ceremonies, maintain facilities and equipment. Review reports and daily activity sheets to ensure that they meet department standards. Prepare reports, summaries, and other records required by department or MPCTC. Serve on project committees. Manage various training databases. Participate in the Section budgeting process as necessary.

3. Job Element: Supervision
   Supervise subordinate personnel and guide subordinate instructors in conducting training courses. Motivate and model instructors to provide quality services that motivate trainees to learn. Establish work standards, conduct performance appraisals, counseling, and discipline. Supervise a squad of recruits. Coordinate and oversee the department's FTO programs.

5. Job Element: Skill Development
   Attend training courses to obtain certifications, increase skill levels, or develop additional skills in other areas. Stay abreast of current information within own areas of expertise. Apply expertise or training to meet organizational objectives.

Required Knowledge, Skills and Abilities: Same as County specifications.

Selection Criteria for this assignment: ***Listed below are the specific knowledge, skills, and abilities that you will be assessed on should you choose to apply for this position.***

- Knowledge of training theories, methods, and practices
- Skill in instructing effectively with various audiences at various levels
- Supervisory skills, including leading, motivating and developing employees
- Skill in communicating effectively with individuals at all ranks
- Skill in researching and compiling information in proper written format
- Skill in operation of automated office systems and word processing, database and file management, spreadsheet software packages, electronic presentation formats, digital/computer-based information storage devices
- Ability to evaluate student progress and plan remedial work
- Ability to evaluate problems and formulate solutions
- Ability to implement and administer training programs
- Ability to be resourceful and innovative in developing lesson plans and presentations

*Experience in teaching, public speaking, and making presentations is desired.

MARYLAND POLICE AND CORRECTIONAL TRAINING COMMISSIONS
LESSON PLAN

COURSE TITLE: Firearms Instructor School/Entrance Level Firearms School

LESSON TITLE: Lead Poisoning

PREPARED BY: Firearms Unit **DATE:** Jan. 2000

REVISION DATE: Raymond Jones – Nov. 2007 – Placed in ITIP Format
Jamie Green – Updated ITIP Format

TIME FRAME	PARAMETERS
Hours: _____ **Minutes** ___30___	**Audience:** Sworn Law Enforcement, Correctional Officers, and Recruits from these Agencies. **Number:** Varies **Space:** Classroom
PERFORMANCE OBJECTIVES	**ASSESSMENT TECHNIQUE**
Students must understand that lead poses a serious health threat to everyone and precautions can be taken while away from the range to protect shooters, instructors, and their families. Students must understand and demonstrate safe practices on the range to minimize the exposure to lead.	Test questions Student will be observed while on the range

INSTRUCTOR MATERIALS

____ Overheads

____ Videotapes:

____ Slides

____ Posters

__X__ Other: Power Point Presentation

EQUIPMENT / SUPPLIES NEEDED

____ Easel Pad & Stands

____ Markers

____ Masking Tape

____ Whiteboard

__X__ Overhead Projector

__X__ Projector Screen

____ Videotape Player

____ Video camera

____ Televisions

____ Video show

__X__ Computers

STUDENT HANDOUTS

METHODS / TECHNIQUES

Instructional system design with adult educational principles, using classroom lecture and presentations with student interactive involvement.

REFERENCES

Federal Bureau of Investigation Firearms Instructor Training Program.

GENERAL COMMENTS

LESSON PLAN

Title: **Lead Poisoning**

PRESENTATION GUIDE	TRAINER NOTES
I. ANTICIPATORY SET	
The U.S. Environmental Protection Agency (EPA) classifies lead as a highly toxic heavy metal with no beneficial use in the body. When a person inhales or ingests lead, it is absorbed into the bloodstream. Once in the body, it becomes very difficult to remove. Continual exposure results in the accumulation of lead in the body, and measurable amounts of lead indicate cumulative exposure over time.	Set ~ 10 minutes

II. INSTRUCTIONAL INPUT (CONTENT)

LEAD POISONING

PP Slides #1 - 8

The U.S. Environmental Protection Agency (EPA) classifies lead as a highly toxic heavy metal with no beneficial use in the body. When a person inhales or ingests lead, it is absorbed into the bloodstream. Once in the body, it becomes very difficult to remove. Continual exposure results in the accumulation of lead in the body, and measurable amounts of lead indicate cumulative exposure over time.

The EPA has determined that lead poses a serious health hazard to everyone. Unfortunately, individuals working with and around firearms often overlook the harmful effects of lead. Therefore, firearms range personnel must take precautions to control all unnecessary exposure to this toxic element. For firearms range personnel, knowing the hazards of lead is a primary responsibility; taking the necessary precautions to minimize exposure is a duty.

Effects of lead on the body

PP Slides #9 & 10

Approximately 6 percent of all lead ingested or inhaled is deposited in the blood or soft body tissues, such as the kidneys, brain, or other vital organs. The remaining 94 percent is deposited in the bone. Because the body mistakes lead for calcium, It presumes that, once deposited, the lead needs to be stored.

The body does, however, break down lead so that it can be removed. The time required for this process is measured by the term "half-life," which means the amount of time the body needs to excrete one-half of the lead dose.

Lead in the bloodstream and in soft body tissue has a half-life of approximately 30-40 days and is excreted through urine, bile, sweat, hair, and nails. However, lead deposited in the bone has a half-life of approximately 20 years. That is, one-half of the lead dosage absorbed by the body through only one exposure and deposited in the bone would still be present after 20 years.

Health Concerns

For decades the presence of lead in the environment has been widespread, beginning with smelting factories and continuing with the manufacture of glazed pottery, batteries, and leaded gasoline. Only recently has it been acknowledged as a serious threat to public health that warranted government control.

In 1971, the EPA began enforcing the Lead Based Paint Prevention Act, which restricts the amount of lead used in paints. Seven years later, the agency set the National Ambient Air Quality Standards, which served as the primary mechanism to reduce the lead in gasoline. However, even with these standards and other controls, the residue of lead in food, water, and dirt can elevate the lead level in a person's blood.

Firearms and Exposure to Lead

PP slide #11

The exposure to lead on the firing line occurs as soon as the shooter pulls the trigger and the hammer falls. This action caused the primer of the cartridge in the chamber to explode, which ignites the main powder charge. At this point, a breathable cloud of lead particles is expelled into the air, with lead dust spraying the shooter hands.

Lead particles also shear off as the bullet travels down the barrel. When the bullet leaves the barrel, a second cloud of contaminants, in the form of the muzzle blast, bursts into the air. Then, as the bullet strikes the impact area, another contaminated cloud rises.

When shooters inhale these clouds of contaminants, lead particles go directly into their lungs and are quickly absorbed into the bloodstream. The blood then transfers the lead to soft body tissue and bone. Heat from smoking, sweating, or physical activity accelerates this process.

Lead can also settle on the skin and hair, and in turn, be absorbed through the pores of the skin. If lead particles reach the mouth, they can be ingested into the digestive system.

Exposure increases at cleanup time, because handling empty casings can result in lead being transferred to the skin. The weapon cleaning process also removes much of the remaining lead in the barrel and transfers it to the cleaner's hands. Oils and solvents used to clean and lubricate weapons cause the natural oils in the skin to evaporate, leaving dry skin and open pores through which the lead can pass.

Symptoms of lead poisoning

PP Slide #6

The numerous symptoms of lead mimic various diseases, often making diagnosis difficult. Most commonly, individuals experience abdominal pain, fatigue, nausea, subtle mood changes, headaches, constipation, irritability, and depression. Muscle pain, muscle weakness, weight loss, impotence, convulsions, anemia, and renal failure may also occur with increases lead levels in the body.

Testing for Lead

Testing for lead can be performed in several ways. The blood lead level (BLL) test detects recent exposure to lead but does not provide information on long term or past exposure. The BLL measures the quantity of lead in micrograms per deciliter of blood, written as ug/100dl, that is, micrograms of lead per 100 deciliters of blood.

The Occupational Safety and Health Administration (OSHA) standards state that the median blood levels for adults should be about 15 ug/100dL. OSHA recommends removal from the workplace of any employee whose BLL measures 40ug/100dL or higher.

Precautions on the Range

PP Slide #12

Precautions can be taken both on and off the range to protect shooters, instructors, and their families from lead poisoning. Administrative controls and good hygiene are two necessary tools. In addition, all shooters and instructors should practice the following *"do's and don'ts*" of range safety.

Don't smoke on the range. Smoking any type of tobacco products on the range should be prohibited to prevent acceleration of inhaled lead into the blood stream and ingestion of lead transferred from hands to the cigarette, cigar, etc.

Don't eat on the range. Lead dust on hands and face can be ingested through contact with food. Airborne lead expelled from the weapon can also contaminate food.

Don't collect fired brass in baseball caps. Many shooters use their baseball caps to collect spent brass; this contaminates the cap with lead particles. When the cap is placed back on the head, the lead is deposited into the hair and absorbed into the skin.

Do be aware that face, arms, and hands are covered with lead. Shooters and instructors should wash thoroughly with cold water and plenty of soap; Cold water is preferred because warm water enhances the absorption of lead by opening the pores of the skin. If no water is available, shooters should consider carrying a box of wet handy-wipes or a bottle of cool water and a washcloth for this purpose.

Do be aware that hair and clothes are still contaminated. Shooters and firearms instructors should wear an outer garment, such as a jumpsuit or coveralls, or change clothes before going home. Blowing, shaking, or other means that dispense lead into the air should not clean contaminated clothes.

Do change shoes before entering residence. Shoes can also transport lead into the home. Shoes should be left at the door to prevent tracking lead onto floors and carpets. As an alternative, disposable shoe coverlets can be used while firing and cleaning, then discarded when leaving the range. Ordinary vacuuming does not remove lead from the home, but redistributes it by blowing it into the air.

Do avoid physical contact with family members until after a shower, Shampoo, and a change of clothes. Lead can be transferred by casual contact. Family and friends should not be hugged or kissed until after a shower and a change of clothes. Any physical contact should be avoided while the shooter is still in range clothing.

Do participate in lead safety training programs. Shooters and instructors should attend all training programs provided by the department or agency to ensure awareness of the hazards of lead.

Indoor Ranges

Most indoor ranges have a greater lead dust problem than outdoor ranges. However, range personnel can institute several controls to lower the amount of lead dust in the facilities.

The choice of ammunition is one such control. Non jacketed ammunition produces the most lead dust and fumes; jacketed ammunition, the least. Shotgun shells produce more airborne lead dust than any handgun round. Currently, many ammunition manufacturers are trying to develop lead-free ammunition.

Indoor ranges should not be carpeted, since lead dust settles and contaminates the rugs. A high efficiency particulate (HEPA) vacuum, which has a 3 stage particulate air filter, is the best air vacuum to use for lead. Because water cannot be treated for lead contamination, personnel should use water sparingly to remove lead when cleaning ranges. If water is used for lead removal, minimizing the amount of water used will result in less pollution. Range maintenance employees should wear disposable coveralls and air purifying masks while cleaning and/or repairing indoor ranges.	
III. CONCLUSION During the early years of firearms training, neither eye protection nor ear protection was provided or encouraged on the range. Today most departments now require both types of protection on the line. Currently, another health hazard—lead poisoning- threatens the physical well-being of shooters and instructors in firearms ranges. However, through administrative controls and education, departments can reduce the on the job exposure of employees and their families to lead. Firearm training helps to keep officers safe while performing their duties. Now the time has come for departments to ensure officer safety from a serious health hazard during this training.	PP Slides #13 - 18
IV. EVALUATION / CLOSURE	~ 10 minutes